

REMARKS

In the Office Action, the Examiner rejected claims 14 – 26 under the second paragraph of section 112, rejected the claims 14 – 16 and 19 – 26 as obvious over Rourke et al in view of Stahl GmbH “Folding Techniques” in view of Yamada and Zuckerman, rejected claims 17 and 18 as obvious over Rourke and Stahl and Yamada and Zuckerman in view of Iwasaki and Ahrens.

Telephone Interview

Applicant notes with appreciation the courtesies extended to Applicant’s representative during a telephone interview between Examiner’s Robinson and Lamb and the undersigned counsel. During the interview, the limitations of claim 16 were discussed and in particular how they distinguished over the Rourke reference. The section 112 rejection was discussed briefly and it was agreed to cancel claim 20 as a result. Discussion was also conducted as to whether the page by page simulation of folds found in claim 16 could be included in independent claims 21, 24 and 26 without raising new issues after final, and the Examiner indicated that this would not raise a new issue in light of the already considered claim 16 and the structure of the independent claims wherein method limitations are generally provided.

35 USC 112, 2nd ¶

Applicant respectfully traverses the section 112 rejection. The claimed invention provides for computer simulation of the folds in the printed document. The end result of the claimed invention is a simulation of the folded pages for printing. Cutting and folding are not required to achieve this simulation. The claim 20 which claimed binding and therefore could include cutting and folding as prior steps has been cancelled. Applicant submits that the rejection is thereby overcome.

35 USC 103(a)

The Rourke reference (US 5,398,289) discloses that at least one parameter is defined for the recording medium. In Rourke, the parameter is the thickness of the copy sheets 108. (See column 7, line 28). Rourke provides that the parameter is used to determine the number

of signatures 170 (see column 7, lines 8 – 29 and in particular line 10). Rourke discloses that an intra-segment signature shift is provided to shift the frames in each signature. According to Rourke, this shift is programmed.

The present invention differs from the teaching of Rourke in that the simulation of folding is done page by page.

In Rourke, the intra-segment shift must be programmed and is done manually by the operator of the system. The only calculation that is done automatically is the inside margins of each page within a signature. All the pages within a signature will have the same shift value for position correction. The disadvantage is that the image positions on pages within the same signature may differ from each other because pages are folded within signatures.

Rourke does not offer correction page by page but does the correction signature by signature. The position correction according to Rourke is a constant shift increment for each page.

In the present invention, the position correction is performed page by page within a signature based on the parameter. A significant improvement in registration of printing images of successive pages is provided, because the position correction is individually calculated for each page and therefore matches very precisely with the page image shift that results due to the signature folding. Successive pages are in register with one another.

The Stahl and Yamada and Zuckerman references would not, even if combined with the Rourke reference, obviate the claimed invention. Applicants note that the Rourke, Stahl and Yamada references were cited in the corresponding European application and that the European patent has been granted over this art.

Favorable reconsideration of the present application over the cited art is hereby requested.

Applicant submits that the combination of four references to arguably reach the claimed invention is itself evidence of non-obviousness. The person of ordinary skill would have had to pick and chose from the various teachings of the four references in order to

develop the present invention therefrom. Applicant submits that such selection amounts to hindsight reconstruction of the invention using the present application as a guide.

This argument for non-obviousness is stronger still for the claims which have been rejected over a combination of six references. Once the person of ordinary skill has to refer to six reference and make a single combination based on selections of features from each of the six references, this person of ordinary skill is no longer developing an obvious invention but is inventing. The inventor of the present invention has certainly provided a non-obvious improvement over the art.

No New Issues After Final

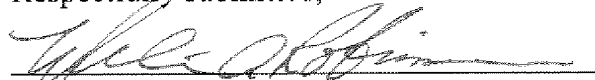
The foregoing presents claim 16 in independent form. This claim has been previously considered and so no new issue is raised by the amended claim. The remaining independent claims have been amended to include a limitation much like that found in claim 16. Applicant submits that the presentation of such a previously considered limitation after final would not raise new issues.

If the Examiner has a concern about new issues being raised by the foregoing amendments, or any other issue concerning this application, the Examiner is invited to contact the undersigned attorney to discuss.

Conclusion

Applicants respectfully request favorable reconsideration and allowance of the present application.

Respectfully submitted,



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